



## SEQUENCE LISTING

<110> Polyan, Kornelia  
Porter, Dale  
Sgroi, Dennis  
Krop, Ian

<120> HIN-1, A TUMOR SUPPRESSOR GENE

<130> 00530-094001

<140> 10/081,817

<141> 2002-02-22

<150> 60/270,973

<151> 2001-02-23

<150> 60/351,908

<151> 2002-01-25

<160> 32

<170> FastSEQ for Windows Version 4.0

<210> 1

<211> 104

<212> PRT

<213> Homo sapiens

<400> 1

Met Lys Leu Ala Ala Leu Leu Gly Leu Cys Val Ala Leu Ser Cys Ser  
1 5 10 15  
Ser Ala Arg Ala Phe Leu Val Gly Ser Ala Lys Pro Val Ala Gln Pro  
20 25 30  
Val Ala Ala Leu Glu Ser Ala Ala Glu Ala Gly Ala Thr Leu Ala  
35 40 45  
Asn Pro Leu Gly Thr Leu Asn Pro Leu Lys Leu Leu Leu Ser Ser Leu  
50 55 60  
Gly Ile Pro Val Asn His Leu Ile Glu Gly Ser Gln Lys Cys Val Ala  
65 70 75 80  
Glu Leu Gly Pro Gln Ala Val Gly Ala Val Lys Ala Leu Lys Ala Leu  
85 90 95  
Leu Gly Ala Leu Thr Val Phe Gly  
100

<210> 2

<211> 86

<212> PRT

<213> Homo sapiens

<400> 2

Arg Ala Phe Leu Val Gly Ser Ala Lys Pro Val Ala Gln Pro Val Ala  
1 5 10 15  
Ala Leu Glu Ser Ala Ala Glu Ala Gly Ala Gly Thr Leu Ala Asn Pro  
20 25 30  
Leu Gly Thr Leu Asn Pro Leu Lys Leu Leu Leu Ser Ser Leu Gly Ile

35 40 45  
 Pro Val Asn His Leu Ile Glu Gly Ser Gln Lys Cys Val Ala Glu Leu  
 50 55 60  
 Gly Pro Gln Ala Val Gly Ala Val Lys Ala Leu Lys Ala Leu Leu Gly  
 65 70 75 80  
 Ala Leu Thr Val Phe Gly  
 85

<210> 3  
 <211> 312  
 <212> DNA  
 <213> Homo sapiens

<400> 3  
 atgaagctcg ccgccctcct ggggctctgc gtggccctgt cctgcagctc cgctcgtgct 60  
 ttcttagtgg gctcggccaa gcctgtggcc cagcctgtcg ctgcgctgga gtcggcgggc 120  
 gaggccgggg ccgggaccct ggccaacccc ctcggcaccc tcaaccgct gaagctcctg 180  
 ctgagcagcc tgggcatccc cgtgaaccac ctcatagagg gctcccagaa gtgtgtggct 240  
 gagctgggtc cccaggccgt gggggccgtg aaggccctga aggcctgct gggggccctg 300  
 acagtgtttg gc 312

<210> 4  
 <211> 258  
 <212> DNA  
 <213> Homo sapiens

<400> 4  
 cgtgctttct tagtgggctc ggccaagcct gtggcccagc ctgtcgctgc gctggagtcg 60  
 ggggcccagg ccggggccgg gacctggcc aacccctcg gcacctcaa cccgctgaag 120  
 ctctgtctga gcagcctggg catcccctg aaccacctca tagagggtc ccagaagtgt 180  
 gtggctgagc tgggtcccca ggccgtgggg gccgtgaagg ccctgaaggc cctgctgggg 240  
 gccctgacag tgtttggc 258

<210> 5  
 <211> 104  
 <212> PRT  
 <213> Mus musculus

<400> 5  
 Met Lys Leu Thr Thr Thr Phe Leu Val Leu Cys Val Ala Leu Leu Ser  
 1 5 10 15  
 Asp Ser Gly Val Ala Phe Phe Met Asp Ser Leu Ala Lys Pro Ala Val  
 20 25 30  
 Glu Pro Val Ala Ala Leu Ala Pro Ala Ala Glu Ala Val Ala Gly Ala  
 35 40 45  
 Val Pro Ser Leu Pro Leu Ser His Leu Ala Ile Leu Arg Phe Ile Leu  
 50 55 60  
 Ala Ser Met Gly Ile Pro Leu Asp Pro Leu Ile Glu Gly Ser Arg Lys  
 65 70 75 80  
 Cys Val Thr Glu Leu Gly Pro Glu Ala Val Gly Ala Val Lys Ser Leu  
 85 90 95  
 Leu Gly Val Leu Thr Met Phe Gly  
 100

<210> 6  
 <211> 85  
 <212> PRT

<213> Mus musculus

<400> 6

Val Ala Phe Phe Met Asp Ser Leu Ala Lys Pro Ala Val Glu Pro Val  
 1 5 10 15  
 Ala Ala Leu Ala Pro Ala Ala Glu Ala Val Ala Gly Ala Val Pro Ser  
 20 25 30  
 Leu Pro Leu Ser His Leu Ala Ile Leu Arg Phe Ile Leu Ala Ser Met  
 35 40 45  
 Gly Ile Pro Leu Asp Pro Leu Ile Glu Gly Ser Arg Lys Cys Val Thr  
 50 55 60  
 Glu Leu Gly Pro Glu Ala Val Gly Ala Val Lys Ser Leu Leu Gly Val  
 65 70 75 80  
 Leu Thr Met Phe Gly  
 85

<210> 7

<211> 312

<212> DNA

<213> Mus musculus

<400> 7

atgaagctta ccaccacctt tctagtgtct tgtgtggctc tgctcagtga ctctggtgtt 60  
 gcttttctca tggactcatt ggccaagcct gcggtagaac ccgtggccgc ccttgctcca 120  
 gctgcagagg ctgtggcagg ggctgtgect agcctaccat taagccactt ggccatcctg 180  
 aggttcatcc tggccagcat gggcatccca ttggatcctc tcatagaggg atccaggaag 240  
 tgtgtcaccg agctgggccc tgaggctgta ggagctgtga agtcactgct ggggggtcctg 300  
 acaatgttcg gt 312

<210> 8

<211> 255

<212> DNA

<213> Mus musculus

<400> 8

gttgctttct tcatggactc attggccaag cctgcggtag aaccctgtggc cgcccttgct 60  
 ccagctgcag aggctgtggc aggggctgtg cctagcctac cattaagcca cttggccatc 120  
 ctgaggttca tcctggccag catgggcac ccttggtatc ctctcataga gggatccagg 180  
 aagtgtgtca ccgagctggg ccctgaggct gtaggagctg tgaagtcact gctggggggtc 240  
 ctgacaatgt tcggt 255

<210> 9

<211> 23

<212> DNA

<213> Artificial Sequence

<220>

<223> primer

<400> 9

gagggaaagt tttttttatt tgg

23

<210> 10

<211> 22

<212> DNA

<213> Artificial Sequence

<220>  
<223> primer

<400> 10  
caaaactaac aaaacaaaac ca

22

<210> 11  
<211> 24  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> primer.

<400> 11  
gttaagagga agttttcgag gttc

24

<210> 12  
<211> 24  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> primer

<400> 12  
ggtacgggtt ttttacgggt cgtc

24

<210> 13  
<211> 22  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> primer

<400> 13  
aacttcttat acccgatcct cg

22

<210> 14  
<211> 24  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> primer

<400> 14  
gttaagagga agtttttgag gttt

24

<210> 15  
<211> 24  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> primer

<400> 15  
ggatatgggtt ttttatgggtt tggt

24

<210> 16  
<211> 25  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> primer

<400> 16  
caaaacttct tataaccaat cctca

25

<210> 17  
<211> 21  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> primer

<400> 17  
tttccctgct tccacactag c

21

<210> 18  
<211> 21  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> primer

<400> 18  
agattaagaa ggaattgacc t

21

<210> 19  
<211> 547  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc\_feature  
<222> 186  
<223> n = C or G

<400> 19  
cgcccgaggga ggccggccggg agtgaggcct gatcgctccct ggccgctcca cctccccagg 60  
cgcagaaggc gcccacgagg acccccagtg ccgcagcttg ccacgggtctg ggatcagagg 120  
cagggaccag ggagccagga actgcgccgc ccccgccctg cctggcgcgga ggaagctccc 180  
tcaccngagg gaagctcccc tcaccggcc cagccctgag gggggcgcggt ggggtcagac 240  
cgcaaagcga aggtgcgggc cgggggtgggc ctgcgcggaga caaaggccgg gcctgcctct 300  
ctcagagggc ccagcgcct gccaaagagga agtcctcgag gcccgggcag ggaagggggc 360  
acgggcttcc cagggccccgc cggccgcagc aggaagtgg ccagggcacg gccgtgagcg 420  
gagcgggcag ggcttttctca ggagcgcggg cgaggccggc gctggagggg cgaggaccgg 480  
gtataagaag cctcgtggcc ttgcccgggc agccgcaggt tccccgcgcg ccccgagccc 540

ccgcgcc

547

<210> 20  
 <211> 279  
 <212> DNA  
 <213> Rattus norvegicus

<400> 20  
 gttctctgtt ttgtgttggg aggcgttgct ttcttggtgg attcactggc caagcctgtg 60  
 gtagaaccgc tggctgccat tgctacagct gcagaggctg tggcaggggc tgtgcctagc 120  
 ctaccattaa gccacttggc catcctgagg ttcacgtga ccagcctggg catccattg 180  
 gatectctca tagatgggtc caggaagtgc gtcaccgagc tgggcctga ggctgtagga 240  
 gctgtgaagt cactgctggg ggcctgaca acgttcggt 279

<210> 21  
 <211> 93  
 <212> PRT  
 <213> Rattus norvegicus

<400> 21  
 Val Leu Cys Phe Val Leu Val Gly Val Ala Phe Leu Val Asp Ser Leu  
 1 5 10 15  
 Ala Lys Pro Val Val Glu Pro Val Ala Ala Ile Ala Thr Ala Ala Glu  
 20 25 30  
 Ala Val Ala Gly Ala Val Pro Ser Leu Pro Leu Ser His Leu Ala Ile  
 35 40 45  
 Leu Arg Phe Ile Val Thr Ser Leu Gly Ile Pro Leu Asp Pro Leu Ile  
 50 55 60  
 Asp Gly Ser Arg Lys Cys Val Thr Glu Leu Gly Pro Glu Ala Val Gly  
 65 70 75 80  
 Ala Val Lys Ser Leu Leu Gly Ala Leu Thr Thr Phe Gly  
 85 90

<210> 22  
 <211> 84  
 <212> PRT  
 <213> Homo sapiens

<400> 22  
 Phe Leu Val Gly Ser Ala Lys Pro Val Ala Gln Pro Val Ala Ala Leu  
 1 5 10 15  
 Glu Ser Ala Ala Glu Ala Gly Ala Gly Thr Leu Ala Asn Pro Leu Gly  
 20 25 30  
 Thr Leu Asn Pro Leu Lys Leu Leu Leu Ser Ser Leu Gly Ile Pro Val  
 35 40 45  
 Asn His Leu Ile Glu Gly Ser Gln Lys Cys Val Ala Glu Leu Gly Pro  
 50 55 60  
 Gln Ala Val Gly Ala Val Lys Ala Leu Lys Ala Leu Leu Gly Ala Leu  
 65 70 75 80  
 Thr Val Phe Gly

<210> 23  
 <211> 252  
 <212> DNA  
 <213> Homo sapiens

<400> 23  
 ttcttagtgg gctcggccaa gcctgtggcc cagcctgtcg ctgcgctgga gtcggcggcg 60  
 gaggccgggg ccgggaccct ggccaacccc ctcggcaccc tcaaccogct gaagctcctg 120  
 ctgagcagcc tgggcatccc cgtgaaccac ctcatagagg gctcccagaa gtgtgtggct 180  
 gagctgggtc cccaggccgt gggggccgtg aaggccctga aggcctgct gggggccctg 240  
 acagtgttg gc 252

<210> 24  
 <211> 83  
 <212> PRT  
 <213> Mus musculus

<400> 24  
 Phe Phe Met Asp Ser Leu Ala Lys Pro Ala Val Glu Pro Val Ala Ala  
 1 5 10 15  
 Leu Ala Pro Ala Ala Glu Ala Val Ala Gly Ala Val Pro Ser Leu Pro  
 20 25 30  
 Leu Ser His Leu Ala Ile Leu Arg Phe Ile Leu Ala Ser Met Gly Ile  
 35 40 45  
 Pro Leu Asp Pro Leu Ile Glu Gly Ser Arg Lys Cys Val Thr Glu Leu  
 50 55 60  
 Gly Pro Glu Ala Val Gly Ala Val Lys Ser Leu Leu Gly Val Leu Thr  
 65 70 75 80  
 Met Phe Gly

<210> 25  
 <211> 249  
 <212> DNA  
 <213> Mus musculus

<400> 25  
 ttcttcattgg actcattggc caagcctgcg gtagaaccg tggccgccct tgctccagct 60  
 gcagaggctg tggcaggggc tgtgcctagc ctaccattaa gccacttggc catcctgagg 120  
 ttcacctctg ccagcatggg catccattg gatectctca tagagggatc caggaagtgt 180  
 gtcaccgagc tgggccctga ggctgtagga gctgtgaagt cactgctggg ggtcctgaca 240  
 atgttcggt 249

<210> 26  
 <211> 249  
 <212> DNA  
 <213> Rattus norvegicus

<400> 26  
 ttcttggtgg attcactggc caagcctgtg gtagaaccg tggctgccat tgctacagct 60  
 gcagaggctg tggcaggggc tgtgcctagc ctaccattaa gccacttggc catcctgagg 120  
 ttcacgtga ccagcctggg catccattg gatectctca tagatgggtc caggaagtgc 180  
 gtcaccgagc tgggccctga ggctgtagga gctgtgaagt cactgctggg ggccctgaca 240  
 acgttcggt 249

<210> 27  
 <211> 83  
 <212> PRT  
 <213> Rattus norvegicus

<400> 27  
 Phe Leu Val Asp Ser Leu Ala Lys Pro Val Val Glu Pro Val Ala Ala

1 5 10 15  
 Ile Ala Thr Ala Glu Ala Val Ala Gly Ala Val Pro Ser Leu Pro  
 20 25 30  
 Leu Ser His Leu Ala Ile Leu Arg Phe Ile Val Thr Ser Leu Gly Ile  
 35 40 45  
 Pro Leu Asp Pro Leu Ile Asp Gly Ser Arg Lys Cys Val Thr Glu Leu  
 50 55 60  
 Gly Pro Glu Ala Val Gly Ala Val Lys Ser Leu Leu Gly Ala Leu Thr  
 65 70 75 80  
 Thr Phe Gly

<210> 28  
 <211> 109  
 <212> PRT  
 <213> *Drosophila melanogaster*

<400> 28  
 Met Phe Lys Leu Ser Ala Leu Val Val Leu Cys Ala Leu Val Ala Cys  
 1 5 10 15  
 Ser Ser Ala Glu Pro Lys Pro Ala Ile Leu Ala Ala Ala Pro Val Val  
 20 25 30  
 Ala Ala Ala Pro Ala Gly Val Val Thr Ala Thr Ser Ser Gln Tyr Val  
 35 40 45  
 Ala Arg Asn Phe Asn Gly Val Ala Ala Ala Pro Val Val Ala Ala Ala  
 50 55 60  
 Tyr Thr Ala Pro Val Ala Ala Ala Tyr Thr Ala Pro Val Ala Ala  
 65 70 75 80  
 Ala Ala Tyr Thr Ala Pro Val Ala Ala Ala Tyr Ser Ala Tyr Pro Tyr  
 85 90 95  
 Ala Ala Tyr Pro Tyr Ser Ala Ala Tyr Thr Thr Val Leu  
 100 105

<210> 29  
 <211> 327  
 <212> DNA  
 <213> *Drosophila melanogaster*

<400> 29  
 atgttcaagc tgtctgcctt cgttgtcctg tgcgctctgg tggcctgctc ctcggctgag 60  
 cccaagcccg ctatcctggc cgccgctcca gtggttgag ctgctcctgc cggcgtgggc 120  
 accgctacca gttcgcagta cgtggcccg cacttcaacg gtgtggctgc tgcctcagtt 180  
 gttgccgctg cctacaccgc tccagttgcc gccgctgcct ataccgctcc agttgccgcc 240  
 gctgcttata ccgctccagt tgccgctgcc tactctgctt atccgtatgc cgcctaccct 300  
 tacagcgtg catacaccac tgttttg 327

<210> 30  
 <211> 137  
 <212> PRT  
 <213> *Drosophila melanogaster*

<400> 30  
 Met Lys Phe Leu Ala Val Cys Phe Phe Ala Val Val Ala Val Ala Ala  
 1 5 10 15  
 Ala Lys Pro Gly Ile Val Ala Pro Leu Ala Tyr Thr Ala Pro Ala Val  
 20 25 30  
 Val Gly Ser Ala Ala Tyr Val Ala Pro Tyr Ala Ser Ser Tyr Thr Ala



35 40 45  
 Asn Ser Val Ala His Ser Ala Phe Pro Ala Ala Tyr Thr Ala Ala  
 50 55 60  
 Tyr Thr Ala Pro Val Ala Ala Tyr Thr Ala Pro Val Ala Ala Ala  
 65 70 75 80  
 Tyr Thr Ala Pro Val Ala Ala Tyr Ala Ala Pro Ala Ala Tyr Thr  
 85 90 95  
 Ala Ala Tyr Thr Ala Pro Ile Ala Arg Tyr Ala Ala Thr Pro Phe Ala  
 100 105 110  
 Ala Pro Ile Ala Ala Pro Val Ala Ala Tyr Thr Ala Pro Ile Ala  
 115 120 125  
 Ala Ala Ala Pro Val Leu Leu Lys Lys  
 130 135

<210> 31  
 <211> 411  
 <212> DNA  
 <213> *Drosophila melanogaster*

<400> 31  
 atgaattcc tcgccgtctg cttcttcgct gttgtggctg tggctgctgc caaacccggt 60  
 attgtggctc ctctggccta caccgctccg gctgtggctg gcagtgccgc ctacgtggct 120  
 ccctacgcct ccagctacac cgccaactcg gtggcccaca gcgccgctt cccagctgcc 180  
 tacaccgccg cctacactgc tcccgttgct gctgctata ccgctccagt ggctgctgct 240  
 tataccgctc cagtggccgc tgcgtacgcc gccccagctg cctataccgc tgcctacacc 300  
 gccccattg cccgttatgc cgccaccccc ttcgcagcac ccacgcgcgc tcccgtggct 360  
 gccgcctaca ccgcccccat cgccgcgct gccccagttc tgctgaagaa g 411

<210> 32  
 <211> 93  
 <212> PRT  
 <213> *Homo sapiens*

<400> 32  
 Met Lys Leu Val Thr Ile Phe Leu Leu Val Thr Ile Ser Leu Cys Ser  
 1 5 10 15  
 Tyr Ser Ala Thr Ala Phe Leu Ile Asn Lys Val Pro Leu Pro Val Asp  
 20 25 30  
 Lys Leu Ala Pro Leu Pro Leu Asp Asn Ile Leu Pro Phe Met Asp Pro  
 35 40 45  
 Leu Lys Leu Leu Leu Lys Thr Leu Gly Ile Ser Val Glu His Leu Val  
 50 55 60  
 Glu Gly Leu Arg Lys Cys Val Asn Glu Leu Gly Pro Glu Ala Ser Glu  
 65 70 75 80  
 Ala Val Lys Lys Leu Leu Glu Ala Leu Ser His Leu Val  
 85 90